

## bart impact program

THE IMPACT OF BART ON STATE HIGHWAY PLANS AND POLICIES

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The BART Impact Program is a comprehensive, policy-oriented study and evaluation of the impacts of the San Francisco Bay Area's new rapid transit system (BART).

The program is being conducted by the Metropolitan Transportation Commission, a nine-county regional agency established by state law in 1970.

The program is financed by the U.S. Department of Transportation, the U.S. Department of Housing and Urban Development, and the California Department of Transportation. Management of the Federally funded portion of the program is vested in the U.S. Department of Transportation.

The BART Impact Program covers the entire range of potential rapid transit impacts, including impacts on traffic flow, travel behavior, land use and urban development, the environment, the regional economy, social institutions and life styles, and public policy. The incidence of these impacts on population groups, local areas, and economic sectors will be measured and analyzed. The benefits of BART, and their distribution, will be weighed against the negative impacts and costs of the system in an objective evaluation of the contribution that the rapid transit investment makes toward meeting the needs and objectives of this metropolitan area and all of its people.

### BART IMPACT PROGRAM

### PUBLIC POLICY PROJECT

THE IMPACT OF BART ON STATE HIGHWAY PLANS AND POLICIES



October 1977 WORKING PAPER

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U.S. DEPARTMENT OF TRANSPORTATION AND U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

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### SUMMARY AND FINDINGS

Bay Area Rapid Transit (BART) is a 71-mile rapid rail system serving the Bay Area counties of Alameda, Contra Costa and San Francisco. The system came into operation incrementally between 1972 and 1974. Thirty-four stations are served by automatically controlled trains and the system carries about 137,000 one-way trips each day.

This Working Paper examines the impacts of BART on State highway facilities, plans and policies in the San Francisco Bay Area. This analysis is intended to describe the impacts of BART, explain what appear to be reasons for certain outcomes and draw some alternatives for future policy-making on the subject of rapid transit and State highway interactions.

This paper was designed to answer several overall questions about BART and State highways:

- Has BART caused any reduction in highway facilities and plans?
- . Has BART affected State policy, general or specific, relating to highways and/or rapid rail?
- . What were the effects of BART and State negotiations on joint use of highways?

The study approach also included deriving hypotheses about the probable impacts of BART on State highway facilities and policies. These hypotheses were derived from evidence about policy-making in bureaucracies generally and within the California Highway Department in particular. This evidence suggested that we should be surprised to find BART had a significant impact on highway development and policies, other than to produce policies protective of State interests. Nor was it expected State facilities would be markedly reduced as a result of BART.

### 1. BART AND STATE HIGHWAY FACILITIES

BART did not significantly reduce State highway facilities. Its main effect was to alter the timing of highway facilities, to widen them in some cases, but not to reduce highway miles. In the one case where BART may have significantly reduced a highway facility—the planned Southern Crossing Bridge which was never built—the evidence is that BART was, at most, one among several causes for the demise of the bridge plans. And, in this case, the deciding factor was a public vote in anticipation of BART, not State planning or policies responding to BART.

### BART AND STATE HIGHWAY POLICY

BART interactions with State highways did create State policy responses at three levels:

- One response was a very general policy guideline for highway planning in conjunction with transit. The policy was not adopted by the Highway Commission, the logical body to formalize highway planning policy in California, is quite vague in its guidance to regional highway department directors and delegates transit and highway coordination to a regional planning process not clearly defined.
  - The second policy response is more specific and was embodied in Section 150 of the Streets and Highways Code by the 1970 State Legislature. The policy spells out what the State will normally require of transit, including rapid rail, in the way of locations, disposal of lands occupied by transit in case of abandonment and other issues relevant to the protection of State interests. In the policy, the Highway Commission makes the final determination whether or not transit will occupy a corridor, presumably under consideration of the motoring public. Other elements of the policy generally protect State interests.
- The third State policy response represents the most significant impact of BART and is contained in four major agreements between the State and BART between 1963 and 1969. These agreements spell out responsibilities of BART and the State for costs, payments, property rights and contingencies in cases where highways and transit cross, parallel and join. In general, the evidence is that the agreement policies are, in large part, a response to BART and not modeled after previous agreements with, for example, utilities. agreements generally spell out BART responsibilities to the State and represent more of a compromise in BART's bargaining position and preferences than the State's. This outcome can be explained by the positions and resources of the negotiators, the role of the press and outside interests.

### CONCLUSIONS AND IMPLICATIONS

The conclusions of this analysis raise some important questions about rapid rail systems and highway planning. The main conclusion is that no dramatic changes in State highway facilities and policies occurred as a result of BART, except policy changes generally protective of State interests. To the extent that transit advocates and planners hoped for significant reductions in highway facilities or changes in highway policies amenable to transit development, their expectations were not met. The important question for purposes of drawing implications is why the planning and development of a rapid rail system did not significantly alter the course of State highway planning. And, if the public interest would have been better served by different outcomes from interactions between transit and highways, what are the determinants of the interactions and how might they be manipulated by policy?

In response to the first question, the planning of a rapid rail system cannot be expected to radically alter the direction of an established bureaucracy such as State highways unless interests intervene other than a new transit agency like BART. It is unreasonable to expect State highways to voluntarily consider the interest of the transit public. On the contrary, State administrators will rightly ward off threats by transit to State programs and plans, while seeking to make the most of any obligatory marriage with transit.

A response to the second question is more difficult. This analysis leads to the conclusion that the determinants of outcomes between State highways and transit are political, not analytical or planning oriented. Where there are divergent views and preferences among interacting agencies, it is bargaining and compromise which will resolve differences, not concepts of coordination held by planning interests. However, the analysis has not attempted to evaluate the costs and benefits of specific outcomes, such as BART sharing certain State medians. Thus, it is difficult to assess the merit of current vs. alternative alignments and, therefore, to argue for or against other than the political process used by BART and State highways to arrive at joint developments. However, the joining of rail systems with existing or planned highway right-ofway appears to offer advantages over separate development in cases where rapid rail systems are being considered. If so, this analysis suggests the optimum amount and type of joint development may not result from the interaction of a newly formed transit district like BART with an established bureaucracy such as State highways. is at least the possibility that two such agencies alone interacting will develop an amount and type of joint use other than what is desirable from a broad cost-benefit standpoint. Thus, there should be a role in such interactions for Federal and regional government.

At the very least, the Federal government should require attention to be given to joint use of highway corridors in rapid rail planning. More importantly, the Federal Government should encourage cost-benefit analysis of alternative joint use schemes, perhaps through its funding of regional transportation planning agencies. Particular attention should be paid to the proposed agreements between State highways and transit on compensating the State for delayed plans; modifying or accelerating plans for highway development; protecting the motorist; planning for landscaping and slope maintenance; arranging to purchase right-of-way for transit and/or highway joint use at later dates. These are a few of the areas where interactions between transit and highways alone may not produce the most efficient results.

Of course the performance of cost-benefit analysis by regional planning agencies will not ensure improved results. As we have seen, analysis and planning is secondary to bargaining, trade-offs and compromises in determining the outcomes of interacting agencies. For this reason, the Federal role through the regional planning agency, probably needs to be tied to the Federal government's fiscal participation in rapid rail developments. Capital funding requirements for any rapid rail developments ought to encourage attention to joint use. The requirements also ought to include review and cost-benefit critiquing of proposed agreements between rail and State highways. In this way, Federal and/or regional government actors will be drawn into agreement negotiations where the necessary compromises and reductions can be made.

Finally, the findings of this analysis raise a question about how effective rapid rail can be in reducing highway facilities and what implications can be drawn. This analysis suggests major highway facilities, plans and policies are unlikely to be altered by rapid rail planning even on the scale of a BART-like system. Another report in the BART Impact Program dealing with BART impacts on traffic and travel behavior finds congestion and road use is unlikely to be diminished for long by a rapid transit system such as BART. Although BART has been responsible for removing some automobiles from congested corridors, the extra capacity provided by BART was filled in within one to two years by new automobile trips. Both findings have a common implication: it is unrealistic to believe rapid rail systems like BART alone can long reduce whatever demands and pressures exist for increasing road capacity. Thus, there should be other compelling rationale for considering rapid rail systems aside from their impact on the perceived need for road development.

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#### I. INTRODUCTION

This chapter presents a description of the BART Impact Program and the Public Policy Project and outlines the organization of this report on State highway plans and policies.

### THE BART IMPACT PROGRAM

The BART Impact Program (BIP) is a comprehensive, policyoriented study and evaluation of the impacts of the new San Francisco
Bay Area Rapid Transit (BART) system. The BIP covers the entire
range of potential rapid transit impacts, with major projects covering impacts on traffic flow, travel behavior, land use and urban
development, the environment, the regional economy, social institutions and life styles, and public policy. The incidence of these
impacts on population groups, local areas, and economic sectors is
being measured and analyzed.

### 2. THE PUBLIC POLICY PROJECT

The Public Policy Project can be viewed as a major integrating chapter in the overall BART Impact Program. Each BIP project measures and evaluates BART's impacts on a variety of social, economic, transportation and community factors. The Public Policy Project, in turn, measures the direct and indirect impact of BART on public policy and the policy-making process. The project also assesses how impacts evaluated in other projects result in changes in public policy and the policy-making process and how public policy changes further impact BART.

More specifically, the Public Policy Project includes an examination of:

- The policy-making process and behavior that occurred locally (neighborhood, city-wide, region-wide) due to a given BART impact(s).
- The public policy change or decision, if any, that resulted from this interaction between a BART impact or expected BART impact and the community, interest groups, public officials and the like.

The implications of these public policy impacts and all other BART impacts on local government policy decisions or lack of decisions.

This report specifically assesses the impact of BART on State highway plans and policies. The main study goals are:

- . To identify the impacts of BART on State highway facilities, plans and policies. This descriptive task is intended to inform local, state and Federal decision-makers and planners about the effects of BART and potential impact of rapid rail transit systems in general on state highway facilities, plans and policies.
  - To explain the outcomes by developing and testing a guiding hypothesis based on policy-making literature and the interaction of actors, agencies and bureaucracies. This task is intended to inform audiences about why state highway impacts of BART and other rapid rail transit systems may or may not be expected to take place. In the explanation of outcomes, the focus is primarily on policy formulation rather than highway facility outcomes.
  - To suggest implications for the Bay Area and other communities contemplating an investment in rapid rail transit.

### REPORT ORGANIZATION

This Working Paper presents findings and conclusions regarding the impact of BART on State highway plans and policies in six chapters as follows:

- Background
  - Chapter I--Introduction
  - Chapter II--Objectives and Methodology-outlines specific research questions, study approach and methodological constraints.
  - Chapter III--Environment For Highway Policy--presents background on BART expectations, the organizational structure for State highway planning, defiinition of highway policy and theoretical framework.

### Findings

- Chapter IV-Highway Planning And Facility Impacts --identifies the impacts of BART on State highway facilities, particularly reductions in major highway plans for the Bay Area and the State, with an eye to the possible effects of BART. The so-called highway "unadoption" process is examined, as is the case of the proposed Southern Crossing bridge and highways near to or paralleling BART.
- Chapter V--Public Policy Impacts--relates the impacts of BART on State highway policy, focusing on documentation which reflected the intent of State highways with respect to BART. Policies set forth in specific agreements between State highways and BART were also examined.

### Conclusions And Implications

- Chapter VI--Conclusions And Implications
--summarizes the main findings and draws
conclusions and implications. The main
findings relate not only to BART impacts,
but reasons for those impacts and ways
in which rapid rail planning might ensure greater attention to costs and
benefits to the broad public.

#### II. OBJECTIVES AND METHODOLOGY

This chapter outlines the study objectives, methodology and approach used in completing an assessment of BART's impact on State highway plans and policies for the Bay Area. Specific topics include an overview of research questions, a description of the study approach, and a discussion of methodological constraints.

### 1. SEVERAL RESEARCH QUESTIONS ABOUT BART'S IMPACT ON HIGHWAY PLANNING AND POLICY PROVIDE A BASIS FOR STUDY ANALYSIS

The Bay Area contains a major system of State highways which, prior to BART operation, was the primary regional transportation system. This study will assess the impact of BART on highway planning, policy and construction in the Bay Area.

The Public Policy Project Study Design suggests several questions to be answered in the assessment of BART impacts on State highways. Some of these questions relate to the impacts of BART on State highway plans and facilities, while others relate to State highway policies. Although the primary purpose of this study is to examine public policy impacts of BART, it is important to assess the impacts of BART on certain highway facilities, which may reflect or generate State highway policy impacts.

### General study questions include:

- . Has BART caused a reduction in total miles of highways and trans-Bay bridges planned for the Bay Area, particularly highways paralleling BART?
- Has local level bargaining on State highways in conjunction with BART resulted in changes in highway planning and facilities?
- . Has heavy traffic to BART stations required improvements in highway access facilities such as ramps?
- Has joint highway-BART construction, or other State-BART interaction, resulted in any changes in State policies;
- What bargaining resulted in State agreements with BART on joint projects?

### 2. THE STUDY APPROACH INCLUDED A THOROUGH REVIEW OF BART AND STATE DOCUMENTS SUPPLEMENTED BY KEY INFORMANT INTERVIEWS

Approximately 1,000 copies of correspondence, memos to file, meeting minutes, staff and consultant memoranda, newspaper clippings and agreements have been collected as part of this study. These materials have been organized roughly chronologically and by highway or BART station and relate to four major areas of study:

- . Southern Crossing Bridge
  - Highway 24 (Alameda and Contra Costa Counties)
- . Highways 280, I-80, I-580 and the BART tube
- . Pleasant Hill and El Cerrito Del Norte stations

The areas of study were selected to represent cases where BART and State highways interacted on proposed routes, parallel and joint developments and system access.

Sources for these written materials include:

- . BART headquarters central file and storehouse in Oakland.
- CALTRANS District IV office transportation library, document storehouse and project engineer's department files.
- CALTRANS Sacramento headquarters, Legal Division (BART-State agreements for joint use of certain highway corridors).
- Institute of Transportation Studies Library, University of California at Berkeley (newspaper clippings).
- Metropolitan Transportation Commission (MTC) (reports and correspondence).

Document review was supplemented by key informant interviews with approximately 20 BART and CALTRANS officials. Appendix A provides a list of key informants interviewed during this effort.

 THE STUDY RESEARCH QUESTIONS AND APPROACH PRESENT A NUMBER OF METHODOLOGICAL CONSTRAINTS IN DRAWING CONCLUSIONS ABOUT BART IMPACTS

In any study of public policy-making processes, the method of investigation and availability of information often constrain the researcher's ability to investigate study hypotheses. Research on policy-making in response to BART has often required interviews addressing decisions in the distant past, or the searching of records and data about past events which are unavailable or spotty. In only a few cases did interviews touch on current subjects and were supported by records, data or independent research. More specific methodological strengths and weaknesses in major study areas and the implications for the confidence of findings are outlined below:

### (1) Data Outlining Possible Changes In Planned State Highway Facilities Are Limited But Provide Some Indication Of BART's Impacts

The Southern Crossing Bridge appears to be the most important case of a proposed paralleling highway facility affected by BART. The voters were conclusively and finally responsible for the decision not to construct the facility. No voter analysis was taken at the time of the vote to indicate the reasons or attitudes of the voters and any possible relationship of these attitudes to BART. On the other hand, some private survey information and newspaper and periodical articles provide some information about the positions taken by relevant organizations and actors on the Southern Crossing and why these positions were taken. With these sources, BART's impact on the Southern Crossing can be determined with some confidence.

The question of BART's effect on total miles of highways in the Bay Area is too broad to answer without a review of not only every State facility remotely associated with BART, but also a review of highway funding and construction processes for the entire state versus the Bay Area region. Rather than attempt this review, the question can be narrowed to focus on the relationship of BART to any terminations of highway plans and commitments (known as "unadoptions") in CALTRANS District IV. The District includes all of the BART counties as well as Santa Clara, San Mateo, Marin, Sonoma and Napa Counties.

(2) The Availability Of Documentary Evidence On Joint BART/Highway Development Policies Leads To A High Level Of Confidence In Study Findings On State Policy Impacts

A review of various highway and BART documents (including minutes, memoranda and correspondence from 1962 to the present) provides an important source of information about agreement decisions. This source identified issues and compromises underlying agreement policies between BART and the California Department of Public Works (DPW), now CALTRANS, for joint use projects built in the 1960's. The documents also identify any general BART related highway policies or guidelines issued from CALTRANS or DPW. The richness of this written account in identifying decision processes and resulting outcomes has enhanced the confidence of study findings on agreement policies.

Interviews provide another source of information about State policy impacts of BART. This source presents several methodological problems:

- While the negotiators for the two main joint use agreements (Grove Shafter and Highway 24) were available for interview, several other important key informants are retired and unavailable or are available only by telephone. These individuals include the former BART General Manager and the DPW District and Headquarters Chief Engineers at the time of the main joint use agreement negotiations.
- The negotiators for the joint use agreements must recall positions and issues of ten or more years ago.
- The negotiators showed some reluctance to discuss certain aspects of the joint agreements which are the subject of current litigation. This reluctance prevented one of the BART lawyers from giving an interview.
- As with any interviews, respondents can be biased, or specific statements or conclusions can be taken out of context. Interviews were most useful where matters of fact expressed by the

respondent could be verified by documentation or respondents with differing viewpoints. On the other hand, respondents could not be expected to answer questions requiring unavailable analysis such as the effect of BART on the Southern Crossing popular vote.

As much literature on sociological modes of inquiry attests, bias can enter interviews in the form of a respondent's tendency to agree rather than disagree with the interviewer's ideas or statements. One way to minimize this problem is not to begin interviews with BART-related questions. For example, in interviews aimed at determining the effect, if any, of BART on unadoptions, the question might begin with the reasons for unadoptions with no mention of BART.

(3) The Availability Of Some Documentary Evidence Provides An Adequate Level Of Confidence In Findings About State Highway Access To BART

Analysis on BART station access relates to specific types of highway facilities. Primary sources of information include public hearing accounts, traffic studies and interviews with both BART and CALTRANS staff who currently, or in the past, have worked on highway projects possibly related to BART. Relevant projects include the Del Norte station in El Cerrito and the Pleasant Hill station in Walnut Creek.

#### III. ENVIRONMENT FOR HIGHWAY POLICY

BART-related changes in State highway planning and policy must be viewed in the context of the original expectations of BART as well as the organizational setting for developing highway policy. This chapter begins with a description of BART's expected impact on State highways and presents the background and history of the California Department of Transportation, the agency responsible for State highway planning. The chapter concludes with a definition of highway policy as used in this study and a summary of public policy literature relevant to assessing BART's impact on highway policy.

### 1. CONGESTION RELIEF WAS A PRIMARY OBJECTIVE RELATED TO HIGHWAY PLANNING IN THE ORIGINAL DEVELOPMENT OF BART

Original expectations of the BART system, as outlined in the 1962 Composite Report, included the reduction of auto congestion and a corresponding reduction in the need for expansion of the Bay Area's highway network. As early as 1956, engineering consultants reporting to the Bay Area Rapid Transit Commission indicated that "the necessity for traffic to flow freely" was the main rationale for considering rapid rail transit. Regional highways were considered vital to the auto age, but were not able to meet regional transportation needs due to their congested state. Only "vastly increasing highway capacity" or "drastic improvements" would sufficiently reduce congestion. At the time, engineers and planners did not view this type of highway expansion as a viable alternative and, thus, urged consideration of rapid rail transit.

# 2. THE CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) IS THE ORGANIZATION CURRENTLY RESPONSIBLE FOR ALL STATE HIGHWAY PLANNING AND CONSTRUCTION

An appreciation of the history and structure of the California Highway Department (now CALTRANS) is important to an understanding of BART's impacts on this agency and how representative these impacts may be of those expected of other rapid rail systems.

Currently, responsibility for planning, designing, constructing, operating and maintaining the State's highway system is vested in the California Department of Transportation (CALTRANS). CALTRANS has its roots in the Bureau of Highways created in 1895. In 1917, the Highway Commission was established to guide highway development. At about this same time, the Department of Public Works (DPW) was formed and included the State highway program under a Division of Highways (DOH).

It was not until 1973 that the DPW and DOH were abolished and CALTRANS was established. CALTRANS is currently one of 13 departments within the State Business and Transportation Agency. As of 1976, CALTRANS was organized into three subdivisions: Planning and Programming, Engineering and Operations, and Administration and Legal Affairs (see Exhibit I for organization chart). CALTRANS is further divided into 11 districts within the State, with the District Directors reporting to the Chief Engineer who heads the Engineering and Operations Division.

CALTRANS employed about 14,000 persons in 1976 with an annual operating budget of about \$1 billion. About 95% of the budget is devoted to highway programs, with the rest distributed among mass transportation, aeronautics, planning and general support. Until recently, the agency had neither the mandate nor resources for mass transit planning.

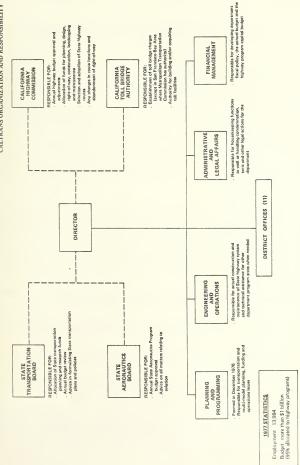
The Director of Transportation is appointed by the Governor and confirmed by the Senate. Aside from the Governor, policy direction comes from the legislature, the California Highway Commission, State Transportation Board, California Toll Bridge Authority and State Aeronautics Board. For highway policy, the Highway Commission is most important. The Commission adopts an annual revenue budget in the State Highway Account and allocates funds for planning, design, right-of-way, construction, landscaping and maintenance. It also selects and determines locations for State highways on routes authorized by the legislature and has the authority to change route locations and abandon or relinquish right-of-way.

## 3. A CLEAR UNDERSTANDING ABOUT THE MEANING OF HIGHWAY POLICY IS ESSENTIAL IN DEVELOPING TECHNIQUES TO ANSWER THE RESEARCH QUESTIONS

Before beginning to address study questions, it is important to clarify the meaning of highway facilities and policy. Highway facilities generally refer to any and all of the physical components of typical freeways and highways. These components include lanes, medians, barriers, overcrossings, ramps, fencing, signs and other physical elements of highways.

State highway policy, as public policy, is difficult to define. Policy can, and does, refer to intention or implementation. Policy as intent or goal statement, such as non-intervention policy in foreign affairs, may or may not guide or reflect action. Policy as implementation, such as a city policy of street sweeping at night, is synonomous with action. Both types of policies, general goals or specific actions, are common to any agency or bureaucracy, including the California Department of Transportation (CALTRANS) and the Department of Public Works before it.

EXHIBIT I
Public Policy Project
CALTRANS ORGANIZATION AND RESPONSIBILITY



For purposes of this study, policies which are specific and which represent large and/or long term allocations and costs, resources and responsibilities will be of greatest interest.

4. PUBLIC POLICY LITERATURE AS WELL AS STUDIES OF CALTRANS SUG-GEST THAT DRAMATIC CHANGES IN HIGHWAY POLICY AS A RESULT OF BART ARE MOST UNLIKELY

A review of policy-making literature suggests that the interaction of BART with CALTRANS is not likely to evoke a dramatic policy response within CALTRANS. The literature suggests that policy-making results from issues and problems, not opportunities. New and emergent issues often displace other more important issues as agencies and decision-makers try to allocate limited resources.\(^1\) Additionally, the policy-making process can be characterized as incremental and compromising. Bureaucracies often strive to preserve their existing programs and ensure continued growth, responding the least to apparent opportunities and the most to issues that threaten or impose on existing programs and policies.\(^2\) Finally, policy-making in response to issues is a compromising process in which actions are rarely decided on singular issues, but in tandem with other issues.\(^3\) Thus only where BART raised significant issues for CALTRANS might we expect a major response.

Recent research also indicates that CALTRANS, and DPW before it, has enjoyed considerable freedom from legislative and judicial review, thereby strengthening its resistance to policy changes imposed from outside interests, organizations or agencies. The CALTRANS annual budget is adopted by the Highway Commission and is not subject to formal legislative review or governor's veto. This form of funding gives the agency considerable freedom from legislative budgetary control. Unlike other agencies which must compete for

See, for example, Donald Schon, Beyond The Stable State: Public And Private
Learning In A Changing Society (New York: W.W. Norton, 1971).

<sup>&</sup>lt;sup>2</sup>The best analysis of this process where bureaucracies strive to preserve and enhance their budgets is Aaron Wildavsky, <u>The Politics Of The Budgetary Process</u> (Waltham, Maryland: Little Brown & Co., 1964).

<sup>&</sup>lt;sup>3</sup>See Geoffrey Vickers, <u>The Art Of Judgment: A Study Of Policy Making</u> (New York: Basic Books, 1965).

<sup>&</sup>lt;sup>4</sup>Jacqueline R. Kasun and Theodore K. Ruprecht, "Your Highway Taxes At Work: CALTRANS And The Arcata Freeway," <u>Policy Analysis</u> (Berkeley: University of California Press, Vol. 3, No. 2, Spring, 1977).

<sup>&</sup>lt;sup>5</sup>In June, 1974, Article 26 of the State Constitution was amended to permit revenue raised from the gas tax to be used for the planning and construction of mass transit guideways. This change in financing has come long after most of the major BART/CALTRANS agreements for joint use were negotiated. Also, even under the Constitutional Amendment, the Highway Commission decides on funding and regulations for allocating funding.

revenues, gas tax funds support CALTRANS. In addition, the courts have only the power to review CALTRANS compliance with legally established procedures and cannot question the validity of policy decisions.

The highway program and its administrators have not only enjoyed unusual freedoms, but until very recently, have had a vast and unswerving mission. A relatively small and new agency, such as BART, is unlikely to affect the policies of a State agency with the 1959 legislative mandate to proceed with 12,414 miles of freeway and expressway planning over the subsequent twenty years at a cost of \$10.5 billion. Since 1970, highway construction has slowed with the rescinding of about 400 miles of planned routes and highway planning has been subsumed into a multimodal Department of Transportation in 1973. Despite these changes, BART's impact on policy and facility changes can still be expected to be small or slow.

<sup>6</sup>CALTRANS has the largest budget of any State highway department, according to U.S. Department of Commerce, Statistical Abstract, 1975.

### IV. HIGHWAY PLANNING AND FACILITY IMPACTS

This chapter outlines specific impacts of BART on the planning, timing and character of State highway facilities in the Bay Area. This assessment will distinguish among projects

- With no relationship to BART.
- In anticipation of BART.
- Accommodating BART development.
- . Mitigating adverse impacts of BART.

### 1. THE STATE HIGHWAY UNADOPTION PROCESS IN THE BAY AREA APPEARS TO HAVE NO RELATIONSHIP TO BART

The so-called "unadoption process" used by CALTRANS to alter highway plans is an area where major impacts of BART on reversals of State highway planning might be observed. This unadoption process includes any significant long term reversals of highway planning or routes in the Bay Area, as in the rest of the State. As part of this process, the Highway Commission reassesses the need for continued planning and right-of-way acquisition when it appears certain routes, once scheduled for highway development, will probably not be developed in the foreseeable future. In such a case, acquired right-of-way may be sold as a consequence of unadoption when it becomes clear continued retention of properties by CALTRANS without development is creating costly uncertainties for land use planners and property owners. The sale of such previously acquired rights-of-way cannot only resolve local uncertainties, but free up funds for more pressing highway needs.

Without first mentioning BART, several CALTRANS District engineers and the California Assistant Director for Highways were asked to name routes having been or being considered for unadoption and to suggest the reasons. None of the respondents mentioned BART as a cause in their discussion. The only possible exceptions are the discontinuance of study on Route 61 as a connector to the Southern Crossing, as well as the Southern Crossing itself.

The main routes considered for unadoption, or unadopted all or in part, are Route 17 to the Marin Coast; Route 84 through Woodside; Route 93 in Contra Costa County; Route 92 between 238 and 580; and Route 1 in San Mateo County. These unadoptions are so classified for the same reasons other unadoptions are occurring or being considered in non-BART areas throughout the State. The primary reason for unadoptions appear to be:

- Deletion by the Legislature from the California Freeway and Expressway system, often in response to political opposition at the local level.
- Declining gas tax revenues and increasing construction and maintenance costs.
- 2. THE ANTICIPATION OF BART WAS VERY PROBABLY A CAUSE, THOUGH NOT THE ONLY ONE, FOR CHANGES IN AT LEAST TWO PROPOSED HIGHWAY FACILITIES

Changes in two specific highway facilities, the Southern Crossing and I-580, are illustrative of highway planning decisions where the anticipation of BART is one likely cause of change.

(1) Although BART Was One Reason For The Lack Of Support For The Southern Crossing, An Analysis Of The Eventual Vote Suggests Defeat Despite BART

Key informant interviews and documentary evidence provide conflicting evidence on the fate of the Southern Crossing Bridge, with or without BART. The crossing was proposed as a link from India Basin near Hunters Point in San Francisco to Alameda and Oakland via a tube under the Oakland Estuary, as well as a southerly leg to Bay Farm Island. The crossing had been planned and discussed by the State Division of Bay Toll Crossings since the early 1960's but was finally abandoned in 1972, following defeat of a six-county ballot proposition. Doubts about the Southern Crossing were tied to BART, but the decisiveness of BART in the final popular vote is open to speculation. The important evidence is:

The only survey of public opinion about the Southern Crossing does indicate BART was important to the attitudes of people rejecting the Southern Crossing. In June, 1971, Field Research Corporation in San Francisco took a random sample of 395 persons in the six counties of the Bay Area which were to vote on the Crossing. The results were: 16% in favor, 74% opposed and 10% undecided. Of those opposed, 37% said their reason for opposition was a desire to give BART a chance; another 20% feared increased taxes; 15% said there were already "enough bridges"; 14% feared increased pollution; and the remainder had other

reasons. Unfortunately, this survey came a full year before the vote was taken, and no later surveys of the six counties were conducted.7

A review of numerous newspaper clipplings and written television editorials on the Southern Crossing from 1970 to 1972 indicates that BART is mentioned in the great majority of opposition statements, either alone or in tandem with other points.

Lawrence Dahms, BART Assistant General Manager in 1970, giving BART's position on the effect of the crossing on BART, projected a 4% reduction in BART trans-bay ridership by 1980 and an annual revenue loss of \$500,000. However, possible BART patronage and revenue decline were not prominent arguments against the bridge. 8 Rather, it was the idea of giving BART "a chance to prove itself" without mention of specific effects of the crossing on BART, which was so prevalent in the oppositions' arguments. Former Mayor of San Francisco, Joseph Alioto, expressed the opinion commonly heard from the opposition, "I believe BART will demonstrate that another bridge is not necessary."9

Arguments advanced against the crossing included increased air pollution, opposition to development of bay shore land (in the vicinity of the proposed Shoreline Freeway 61, in the Hunters Point Bayview neighborhood) and increased auto traffic into San Francisco. However, most opposition statements

 $<sup>^{7}</sup>$ In May, 1970, Senator Lewis Sternman did send survey questionnaires to 250,000 people in the 8th Senatorial District, but no analysis was developed and no assessment was made of the reasons behind support of a rejection of the Southern Crossing.

 $<sup>^{8}</sup>$ Statement before the California Toll Bridge Authority, December 14, 1970.

San Francisco Chronicle, "City Vows All-Out Fight On Bridge," February 20, 1971.

contained mention of BART.10 Where multiple reasons were advanced, BART references often appeared first in the order of objections. It is for this reason that an Oakland Tribune editorial, less than six weeks from the time of the public vote observed, "'Let's wait to see what BART will do (about cross-bay traffic)' is the sum and substance of the only publicly voiced reason urging a no vote ..."11

The opposition just prior to the vote included many actors and groups which might influence and/or reflect public opinion: the cities of Alameda, San Leandro, Fremont, Piedmont, Berkeley, Livermore, Newark, Hayward, Redwood City, San Jose, and Richmond; the Metropolitan Transportation Commission, Bay Conservation and Development Commission, Bay Area Pollution Control District, Association of Bay Area Governments, BART, U.S. Coast Guard; almost all Bay Area legislators; Alameda, San Francisco and San Mateo County Supervisors; and the Sierra Club and League of Women Voters. In public releases by the majority of these jurisdictions, agencies and interest, BART was mentioned singularly or in conjunction with other issues.

Based on this information, it would seem the prospect of BART trans-bay service was one of the reasons many voters rejected the Southern Crossing. However, BART was probably not the only factor in the defeat of the Southern Crossing, as an analysis of voting results as displayed in the table on the following page suggests:

The one exception was the public position of the Port of San Francisco. Even the Coast Guard in refusing application for a permit for the Southern Crossing cited not only environmental concerns and barge traffic impacts within their purpose, but the effect of the bridge on BART. See San Francisco Examiner article, "Coast Guard No To Southern Span," August 26, 1971.

Oakland Tribune, Southern Crossing: Logic vs. Emotion, April 30, 1972.

Table 1 1972 COUNTY VOTING RESULTS ON THE SOUTHERN CROSSING

County	No Votes	% Of Total
Alameda	246,733	76
Contra Costa	135,755	75
Marin	57,569	77
Santa Clara	260,483	83
San Francisco	140,176	71
San Mateo	57,569	74

If a belief among voters that BART should be given a chance was the overriding reason behind no votes on the Southern Crossing, one might expect counties with BART to be more in opposition to the crossing than counties without BART. After all, if people believed BART would bring about certain benefits, it should bring the most benefits to people closest to the system. fact that the vote in San Mateo County without BART was not markedly different from the counties with BART (Alameda, San Francisco or Contra Costa) suggests more objections to the Southern Crossing than those related to just BART.

### (2) BART Planning Had A Significant Impact On The Timing And Width Of I-580 Completion In Alameda

For approximately 15 to 20 years, CALTRANS (previously DPW) has planned for the expansion of Interstate Route 580 between the Bay Bridge and the Alameda County line. All but a ten mile section had been constructed by 1970, with design and right-of-way acquisition for the project 85% complete in that year. In 1971, at the request of the Association of Bay Area Governments (ABAG) and BART, and with the approval of the California Highway Commission and Federal Highway Administration, final design of the ten mile segment between Route 238 in Hayward and Route 680 near Dublin was halted so that a study of potential BART use of the ten mile corridor could be completed. After several studies of air quality and land use impacts resulting from the corridor development, a final Federal Environmental Impact Statement was approved in October 1974 for an eight-lane freeway with a wide median between opposing lanes of traffic. The Association of Bay Area Governments

adopted a plan showing combined rail and rapid transit facilities in the corridor and the BART Board of Directors adopted a statement in support of this plan.

Though BART does not currently occupy this corridor, BART was instrumental in the decision to widen ten miles of the I-580 median by providing a 40-foot right-of-way for possible transit usages. Planning by BART, MTC and ABAG has not affected the number of lanes planned for the facility.12 Nor is it certain BART will ever expand its system to occupy the median. Nevertheless, the timing and width of the I-580 facility for a section of ten miles has been affected by BART.

3. THE ACCOMMODATION OF BART DEVELOPMENT SIGNIFICANTLY ALTERED THE EXACT LOCATION, TIMING AND WIDTH OF CERTAIN STATE HIGHWAYS, BUT NOT THE NUMBER OF LANES, INTERCHANGES OR RAMPS

In four important cases BART has affected either existing or planned highway facilities by virtue of entering or crossing those facilities. In these cases, BART either affected an existing highway facility, as in the case of Route 24 in Contra Costa County, or affected a planned facility, as in the case of Route 24 (Grove Shafter Freeway) in Alameda County.

### (1) State Route 24--Contra Costa County

BART has affected 7.2 miles of Route 24 in Contra Costa County where a four to six lane facility existed prior to BART development and where an eight lane facility was not programmed for at least ten years. 13 The freeway was constructed to eight lanes to accommodate BART in the median, with new westbound lanes constructed on the north side of the freeway. BART occupies the center 40 feet of an 80 foot median. At Orinda, the median was widened to 500 feet to provide for a BART parking lot and station.

<sup>12</sup>Planning staff at MTC recommended only six of the proposed eight lanes be paved
first and that two of these be reserved for exclusive bus and carpool operators
on weekdays. See Metropolitan Transportation Commission, MTC Staff Report
I-580, December 9, 1974.

California Division of Highways, District IV, Cooperative Achievements, n.d., 1966.

### (2) Interstate Route 280--San Francisco

On Route 280, BART makes a simpler alteration in highway facilities. BART tunneled under the existing freeway near San Jose Avenue and was constructed adjacent to the existing freeway southward to Knowles Avenue in Daly City.

### (3) Interstate Route 80--Richmond

In Richmond, BART has altered the existing I-80 facility by tunneling under it. The tunnel is sufficiently long to allow for eventual expansion of I-80 from six to eight lanes without additional work to the tunnel.

### (4) Grove Shafter Freeway--Oakland

An eight lane Grove Shafter Freeway was planned before BART proposed entering the median. Eight lanes were eventually built, though CALTRANS estimates the starting date for construction was delayed perhaps 18 to 30 months due to BART/CALTRANS coordination. 14 BART altered the original plans for the Grove Shafter Freeway by widening it for 3.5 miles to accommodate the BART 40 foot right-of-way and by altering ramps and the median at the Grove Shafter MacArthur Freeway interchange. In addition, BART-related structures were added over and under city streets.

For these four highway facilities, accommodating BART development and construction significantly affected the location, timing and width of the highway developments. However, the type of highway facility developed, e.g., the number of lanes, ramps and general physical characteristics, are roughly what would be expected without BART. Even the number and type of off-ramps close to BART stations appear unaffected. BART did urge direct ramping into the BART parking lot at Orinda. This ramp was not built because State law requires ramps to connect to public streets and CALTRANS engineers were concerned about the possibility of confusing, delaying and backing up drivers who enter a parking lot directly from an off-ramp.

<sup>14</sup> California Division of Highways, op. cit., indicates 30 months. Alan Hart, State District Engineer in a letter to B.R. Stokes, BART General Manager, May 17, 1967, indicates 18 months.

### 4. BART-RELATED TRAFFIC AND CONGESTION HAS RESULTED IN ONLY MINOR CHANGES IN STATE HIGHWAY PLANS AND FACILITIES

Two State highway projects, Oak Park and Treat Boulevard interchange at Pleasant Hill and the Interstate 80 interchange in El Cerrito provide examples of facility development subsequent to BART's presence for purposes of alleviating a problem claimed to be attributable to BART.

One consultant defines the problem as "significant vehicle conflicts... where traffic volumes related to BART have increased near principal station exits or entrances ..."15

Traffic studies at the two stations identified above and interviews with CALTRANS engineers indicate traffic delays at peak periods are problematic and partially related to BART; alterations in State facilities in the vicinity of the stations are partially related to the BART-induced problem; but some form of State facility improvements would probably be taking place in the station vicinity at one or both places without BART.

### (1) Oak Park And Treat Boulevard Interchange--Pleasant Hill

Traffic on Treat Boulevard near the BART station is regularly delayed for three signal cycles during peak periods. In addition, heavy traffic at the BART station intersection at Treat (Oak Road) backs up nearby northbound off-ramp traffic (at Buskirk Avenue and Treat). However, a 1975 license plate study in the Pleasant Hill station vicinity shows more BART-bound traffic arrives by surface streets. Thus, while CALTRANS plans many changes in surface streets, Interstate Route 680 and on/off ramps, the major State facility changes appear at most only partially attributable to traffic to and from the BART station. Of the State highway alterations planned -- relocation of two on and off ramps, adding ancillary freeway lanes, relocating truck scales, construction of a noise barrier, and alterations in overpass structures -- CALTRANS publicly claims only two changes in crossover facilities (a direct connection of Oak Park Boulevard to Buskirk and expansion of the Geary Road/Treat crossover) will serve BART-bound traffic.16

Gruen Associates and DeLeuw, Cather & Company, Impacts of BART on the Social Environment, Interim Service Findings - Document No. TM-19-4-76 (NTIS PB 257-10 (AS)), (Berkeley: Metropolitan Transportation Commission, March 1976).

See Record of Design Public Hearing, Oak Park, Geary/Treat Boulevard interchange Modifications, State of California Business and Transportation Agency, Department of Transportation, District IV, Hearing No. 04-062, September 29, 1970.

### (2) Interstate 80 Interchange--El Cerrito

CALTRANS plans to construct an on ramp; revise or widen three ramps; construct an auxiliary freeway lane; and realign, channel or widen several local surface streets, all in the vicinity of the Del Norte BART station in El Cerrito. Of all these changes, only two of thirteen are specifically mentioned in the environmental report as necessary to serve traffic which is bound for the BART Del Norte station. <sup>17</sup> In this case, the two changes are not of State facilities, but are of local streets. Perhaps, this is in response to a 1975 license plate study of drivers bound for the Del Norte station showing less than 25% come from I-80 and most BART-bound traffic arriving on local streets.

<sup>17</sup> State of California Department of Transportation, Negative Declaration, Project 04-CC-80, 04-CC-123, June 10, 1976.

## V. PUBLIC POLICY IMPACTS

Although BART had some impact on the planning, timing and character of many highway facilities in the Bay Area, BART did not result in any significant changes in overall State highway policy. Rather, the primary impact of BART on State highway policy was in the form of agreements between CALTRANS and BART on four major joint development projects.

This chapter outlines the impacts of BART on highway policy. Where expected results are not apparent, possible reasons are considered. The chapter is divided into three sections:

- . Identification of General Highway Policy Impacts.
- Description of Specific BART-State Agreements.
- Assessment of BART-State Agreement Negotiating Process.
- 1. BART'S IMPACT ON STATE HIGHWAY POLICY HAS BEEN TO CREATE ONE GENERAL AND ONE SPECIFIC STATE POLICY GUIDELINE FOR HIGHWAY PLANNING AND DEVELOPMENT IN CONJUNCTION WITH TRANSIT

Two procedures were used to determine whether the State Highway Department (now CALTRANS, previously DPW) has issued any broad guidelines or policy statements relating to BART:

- Two Deputy District Directors and the Assistant Director for Highways were asked to identify any such existing policies.
- . DPW and CALTRANS circular letters and memoranda were searched for relevant policy statements.

None of the interviewees could identify any specific policy guidelines related to BART. A search of memoranda uncovered only two items which might be considered broad policy guidelines relating to BART. Despite these references, the two policy statements are several years old, were never adopted by the Highway Commission, and one is much too general to provide specific guidance.

### (1) State General Policy Guidelines On Transit/Highway Coordination Are Vague And Were Never Formally Adopted By The Highway Commission

A general policy statement regarding State coordination with mass transit districts is summarized in a September 29, 1970, memorandum from James A. Moe, previous Director of Public Works, to James M. Hall, previous Director of the Business and Transportation Agency. When reminded of the document, at least one Deputy District Director indicated the spirit of this guideline has been reflected in CALTRANS District IV policy. 18 The main points outlined in the memorandum and recommended for Highway Commission adoption were:

- "Coordination of highways and transit to handle this (travel) demand should be performed as part of the urban transportation process studies under the policy guidance of local elected officials."
- "Through the transportation planning process, certain corridors can be identified in which the travel demand will be unusually heavy. Either a coordinated solution by two or more modes of travel (such as bus, auto, rail, etc.) or a change from the land use planning (upon which the travel demand was predicted) will be required to respond ... these problems should be dealt with by the required policy-making body."
  - "Where such high-volume corridors are identified by the transportation planning process ... a solution shall be cooperatively sought by the transit district, appropriate public transportation agencies, the Director of Highways and the responsible general planners ..."

The memorandum also mentions ongoing activities which are intended to ensure coordination such as agreement executions, preliminary meetings, written notice to agencies about coordinated studies, data collection, hearings and consultation by DPW with all rapid transit districts with respect to planning.

<sup>18</sup> Interview with Burch Bachtold, Deputy District Director, CALTRANS District IV March 29, 1977.

From all available evidence, the Highway Commission did not adopt this policy. The statement, instead, appears to reflect "our present cooperative efforts with mass transit," as J.A. Legarra, State Highway Engineer, indicated in his cover memorandum forwarding the policy statement to James A. Moe on September 14, 1970.

An important element of this policy statement is its heavy reliance on a vaguely defined urban transportation planning process to accomplish any coordination between transit and highways. The identification of possible joint use corridors is left to regional and local general processes, not the Division of Highways. The policy statement is passive from the standpoint of the highway agencies and does not reflect on direct specific resource allocations or procedures related to BART, or mass transit generally. At the most then, BART's impact on highway policy as reflected in this document is vague and general.

(2) A Specific Policy Guideline On Planning And Financing
For Joint Transit-Highway Development Serves To Protect
Highway Development

Circular letter 71-9, Highway Project Development, General File No. 24, issued February 4, 1971, is much more specific in terms of highway planning and policy. This circular summarizes and interprets Senate Bill No. 2332 passed by the 1970 legislature which added Section 150 to the Streets and Highways Code. Exhibit II, following this page, summarizes the main points contained in the circular. This policy appears to be partly in response to BART, in that reference is made to rapid rail transit, median locations and sales, disposal of the median in case of abandonment and other issues precisely the same as those negotiated with BART in agreements prior to 1970.

As one might expect, the bulk of the provisions in General File No. 24 were designed to safeguard highway developments. To the extent that BART-CALTRANS interactions have resulted in this policy, the result is a State highway policy regulating BART such that highway developments are altered to the least possible extent. For example:

The policy specifies the median as the preferred location for rapid rail development. This location has the least effect on highway interchanges while requiring the transit system to tunnel or overcross the highway corridor to gain median access. In many cases, this might be more costly to transit than paralleling the highway.

# EXHIBIT II Public Policy Project STATE HIGHWAY PLANS AND POLICIES

# SUMMARY OF HIGHWAY PROJECT DEVELOPMENT, GENERAL FILE NO. 24: PROVISION FOR MASS PUBLIC TRANSPORTATION IN FREEWAY CORRIDORS February 4, 1971

# Definitions And Application

- Mass public transportation facilities applies to longitudinal strips either on a freeway median or outside the travelled lane for use by bus or rail transit.
- Policies herein do not apply if transit furnishes funds concurrently with right-of-way acquisition and/or construction.

### Decision Makers

- The State Highway Commission determines provision of public transportation facilities.
- The Federal Highway Administration must approve and provide usual funding for transit on Federal and system routes.

### Planning

- Generally the location of transit should be on the freeway median.
- General area or regional plans must include freeway corridor and transit elements.
- Highway traffic reduction and additional costs due to transit should be estimated.

# Financing And Costs

- For rail transit, the Department will normally require payment from transit for the "market value" of the longitudinal strip.
- The cost of providing the longitudinal strip, separation structures, etc., is considered as cost of freeway development. Stations, parking, shelters, etc., are not included as a cost of freeway development.

 If a proposed transit facility is located on a Federal-aid route and Federal financing is not available, the Highway Commission will not approve.

# Contingencies

 If mass transit is not placed in the designated facility within five years of freeway completion, the Department may develop the land for freeway purposes.

- . The Highway Commission makes the final determination whether or not transit will occupy the corridor, presumably under considerations of costs and benefits to the motoring public, the relevant constituency for the Commission, not the transit public as well.
- If mass transit does not occupy the median within a certain period, the Department acquires it for freeway purposes without mention of any compensation to transit which, according to another provision, has made payment to occupy the longitudinal strip.

Policy General No. 24 summarizes these points aptly: "In the general case, the Department will derive the most benefit from providing space in the median."

2. MAJOR AGREEMENTS ON SPECIFIC JOINT PROJECTS BETWEEN BART AND THE STATE REPRESENT THE MOST SIGNIFICANT IMPACT OF BART ON STATE HIGHWAY POLICY

Four agreements established between BART and the Department of Public Works from 1963 to 1969 represent specific BART-related policies specifying large and/or long term allocations of costs, resources and responsibilities. These agreements set forth binding policies governing responsibilities of BART and the State for costs, payments, property rights and contingencies for cases where highways and transit cross, parallel and join.

Exhibit III summarizes the major provisions of the four primary BART-State agreements analyzed in this study. As these summaries indicate, the provisions of the agreements generally specify BART responsibilities to the State rather than State responsibilities to BART. This result can be considered State policy, assuming policy can be defined as encompassing both responsibilities and expectations. These agreements represent impacts on highway policy only if guidelines set forth by the State varied from common practice in previous State agreement negotiations. Otherwise, agreement policies would merely reflect common and general State practices and would not be attributable to BART interactions.

Interviews did indicate that BART-State agreements were largely unique and were not developed based on past State agreement guidelines. The primary negotiators for both BART and the State emphatically stated that no models were used to guide the development of overall agreements, although principles derived and approved in the first agreement (Grove Shafter Freeway) served as guidelines in later

# GROVE SHAFTER FREEWAY

(11-26-63)

(S: State T: Transit)

Cost Allocation	Cost Allocation	Payment Terms	Property Rights	Contingencies
. T pays S share of ROW cost	. T pays S utility relocation	. S work based on	. S acquires all	. If T abandons ea
in proportion to area occu-	cost attributable to trans-	funds from Highway	rights to property	ment, and if S
pied by T with exception	it, plus a percentage of	Commission unless	occupied by S and T	sells any portio
(11).	total relocation in propor-	T advances funds	(10).	thereof, S pays

ation . S work based on	rans- funds from Highway	of Commission unless	opor- T advances funds	.(8)		. T deposits with	ce of State Treasurer a	pro- deposit as guaran-	n tee of payment to	S, but no more than	\$8,500,000 (24).
T pays S utility relocation	cost attributable to trans-	it, plus a percentage of	total relocation in propor-	tion to occupied areas	(18).		T pays S for maintenance of	common culvert in same pro-	portion as construction	costs sharing (21).	

	five years (22).
--	------------------

T pays S construction costs necessitated by inclusion

T pays S cost of redesign

in proportion to occupied

area for embankment, city water, drainage, detours, etc., and 50% of frontage

scaping (16), and T pays less chain link cost and roads, fencing and landstreet reconstruction,

100% of median barrier

T until Highobligated to

mission es (9).

ment, and if S	sells any portion	thereof, S pays T	sale proceeds (14).
	ment, and if S	ment, and if S sells any portion	any of, S

where T pays entire occupied area, exconveys title to T cost, for which S S provides T with cept for portions easement for T's

# In case T defaults on deposits for S, T pays S all costs accommodation of T attributable to incurred by S

# \* Numbers in parentheses refer to page numbers in the agreement legal documents.

struction costs for state

design of T facilities T pays S 6.19% of condemolition of state facility (16).

of T (9).

# ROUTE 24, CONTRA COSTA COUNTY

(3-9-66)

(S: State T: Transit)

Cost Allocation	Cost Allocation	Payment Terms	Property Rights	Contingencies
T pays S for preliminary	. T pays all utility reloca-	. S not obligated to proceed except to	. T easement area to be minimum of 20'	. If T abandons ease- ment (i.e., fails
m gradite c co om for	(13).	extent T furnishes	from edge of inside lane (6).	to operate transit facilities for
existing facilities to sub-	. T pays S for 50% of land- scape maintenance and re-	. S not obliqated to	. S conveys to T all	three years), and if S sells any por-
trans (III)	placement on common route	repay T until High-	excess property,	tion thereof, S
S credits T \$4M as S share of ROW and utility reloca-	ior live years (I/).	approves (20).	keeps rights and	ceeds (13).
tion (13).	. T pays 100% of slope slip repair, 50% after five		pays market value to T (11).	. Redesign compelled
T pays S 10% of construc- tion for engineering and	years (18).		. T's parcels ac-	by third party is shared equally
inspection on common route (14).	. S credits T for certain improvements (14).		quired prior to agreement are con- veyed to S.	between T and S (9).
			. S conveys easement for occupied area to T (12).	. If S requires T relocation, S reimburses T (B,4).

# SOUTHERN FREEWAY (I-280)

# (9-22-66)

(S: State T: Transit)

contingencies	ement . If T abandons easement file, fails  8). to operate transit facilities for three years), and	tis setts any partion thereof, S pays I sale pro-	. If T fails to pay	S, S DALES WOFN (13).	. If S requires T relocation, S pays
Property Rights	. S conveys easement and joint use rights to T (8).				
Payment Terms	. T pays S \$3.5 M to commence agreement. S obligates \$3.5M to repay T for T's expenditure on High-	way 238 in anticipation of S and S agreement there, if	agrees (12).		
Cost Allocation	T pays for all utility relocation (10).  T maintains easement and joint use area at its	expense (14). T pays S 210% landscape	construction cost for con- struction and maintenance done by S (11).	S may require glare shields at T's expense (11).	. T pays preliminary engin-
Cost Allocation	T may go under and along S if reconstruction done at no cost to S (2).  T pays S market value of	excess ROW received from S (8).	T pays \$3.5M for easement (8).	T pays S entire cost of construction and inspec- tion performed by S.	•

# HIGHWAY 80

# (4-30-69)

# (S: State T: Transit)

. If T dees not complete its structure in 400 days, S at T's expense, removes T's facilities (5).
. T gets permit to encroach on S ROW (2).
T's contractor show performance bond in favor of S for work to be done in 400 days (4).
. T pays for removal or alteration of its facilities upon S request when S's use of ROW requires it (6).
. T at its expense designs and constructs crossing of S ROW, including structure for future highway expan- sion (2).

Contingencies

Property Rights

Payment Terms

Cost Allocation

Cost Allocation

requires, S may de-mand T remove or alter T's facilities at T's expense (6). When highway use

T pays for detours S deems

necessary.

T replaces destroyed land-scape and T pays S 210% for landscape replacement and maintenance (4).

-32-

agreements. Both negotiators did rely, however, on previous agreements with cities, utilities and railroads to alert themselves to general terms, conditions and legal constraints. But, negotiators claim that specific agreement terms are particular not only to BART but to particular sites and negotiation compromises.

# 3. THE AGREEMENT NEGOTIATION PROCESS REPRESENTED COMPROMISE BETWEEN CALTRANS AND BART WITH STATE PREFERENCES DOMINATING

To better understand the significance of BART-State agreements as highway policy impacts, the process used to reach these agreements was assessed. The political science literature suggests at least two main factors which bear on negotiation outcomes between two or more decision-makers: 19

- The positions, perceptions, skills and resources (information, experience, staff) of the decisionmakers, as well as their vested authority.
- The visibility and importance of the issue to attentive publics and potential allies of the decision-makers.
- (1) Characteristics Of The Decision Environment And Process
  Set The Stage For The Considerable Compromise Of BART
  Interests In The Negotiation

A review of the general agreement provisions (Exhibit III) shows a significant commonality among the various BART-State agreements. Interviews with the main agreement negotiators indicate the Grove Shafter agreement, and the negotiating process behind it, served as a model for subsequent agreements. Because of this similarity, the Grove Shafter agreement serves as an example for analysis of the policy-making process.

Significant charteristics of key actors and the negotiation environment bearing on the outcome include:

<sup>19</sup> Martin Meyerson, Edward C. Banfield, "Note on Conceptual Scheme," Politics Planning and the Public Interest (New York: The Free Press, 1955). For a discussion of the factors involved in formulating a proposal for acceptance or passage by a set of actors, in this case legislative actors, see Eugene Bardach, The Skill Factor in Politics (Berkeley: University of California Press, 1972).

While the BART Board and Highway Commission were the ultimate decision-makers in the agreement process, negotiators indicate that neither played an active role in agreement formulation. Evidence supporting their contention comes from a few sources. A review of at least the BART Board minutes, while scant on discussion, indicates no referral of agreements back to staff or committee, which might be indicative of Board involvement. A review of BART/State correspondence and staff meeting minutes confirms that Harry Moses for BART and Melvin Dykman for the State, with Alan Hart as District IV Engineer, were primarily responsible for deriving and debating agreement terms. There is no evidence decision-makers altered any of these negotiated terms.

Newspaper releases, BART and State correspondence over the negotiation period do not point to any mass public involvement in the negotiation. Only a few significant news releases appeared on any of the agreements, none of which reflected or invited public approval in the agreements.

Other actors and interests, particularly the legislature and the City of Oakland, expressed their interest in the agreement outcomes. 20 Most of the interest, however, was to expedite the agreement rather than influence specific terms. In 1963, the Oakland Chamber of Commerce urged immediate advancement of some sort of joint use of the Grove Shafter right-of-way to avoid the need for an additional right-of-way downtown as well as to avoid any further construction delays. 21 Oakland City staff stated a preference for BART in the median and urged BART and the State to avoid any further delays in negotiations so that highway construction could begin. 22

<sup>20</sup>Assembly concurrent Resolution No. 116 introduced by Councilman Dahl on May 11, 1961, urged the Department of Public Works to delay construction of the Grove Shafter Freeway until after June 1, 1962, BART bond issue.

<sup>21</sup>Board recommendation, March 29, 1962.

<sup>22</sup>Letter from Oakland City Manager to Oakland Mayor and City Council, April 18, 1963.

The Grove Shafter Freeway was scheduled to be constructed at the time BART requested consideration for joint use of the highway corridor. The State position as of May, 1961, was that the status of highway plans and the uncertainty of BART bond funding failed to justify widening the Grove Shafter Freeway for BART, -3 which would delay development plans about to be implemented. Thus, the State was initially resistant to any negotiations with BART.

The main negotiators, Melvin Dykman and Harry Moses, had legal and engineering resources at hand, as well as negotiating experience. However, as interviews with both reveal, Moses, an engineer by background, was most anxious to reach an agreement quickly and not involve BART's consultant lawyers, Malcolm Barrett and Wallace Kaapke, too inti-mately for fear of delay. 24 Dykman, on the other hand, a lawyer, was most concerned about legal constraints, for example, that gas tax monies not be used for transit purposes. Dykman also perceived that State facilities should be protected in case transit was not able to fulfill its agreements due to financial difficulties. While Moses wanted to move quickly past possible impediments or risks, Dykman kept focusing attention on them.

<sup>&</sup>lt;sup>23</sup>Memorandum from Assistant State Engineer, J.P. Sinclair to State Engineer J.C. Womack, May 5, 1961.

<sup>&</sup>lt;sup>24</sup>Malcolm Barrett clearly appreciated the urgency of quickly devising an agreement and so stated in a memo to the General Manager, October 7, 1963: "In preparing this agreement, we have given heavy weight to the urgent need of which you have advised us for execution of the agreement ... The fact that the agreement is one with the State of California and not with a private party also has had major influence. Were it not for these two circumstances, it would no doubt be advisable to insist upon a much more precise and detailed agreement."

# (2) The Outcomes Of BART-State Negotiations Indicate BART's Preferences Were More Often Compromised Than The State's

Interviews and documentary evidence suggest that BART's negotiating position was more often compromised than the State's in the following ways:

- BART preferred to acquire title to right-of-way rather than easement. The state believed acquisition was not legally possible and/or unwise in that BART might later abandon some right-of-way. The State also contended any halting of construction contracts for BART might also be illegal. BART did not actively contest this position and, as Exhibit III shows, BART did not generally obtain fee title in the agreements. 26
- In terms of cost sharing, BART preferred to pay State right-of-way, landscaping, construction and fill costs only for the area it occupied. State countered this position using a concept of "share and savings," which prevailed throughout agreements to follow. State negotiators reasoned that right-of-way and fill costs would be reduced by using a single right-of-way rather than two and these cost savings should be shared between the State and BART.<sup>27</sup> Thus BART was to pay for fill up to subgrade under their median and fill under one side slope, saving each party the cost of one

<sup>&</sup>lt;sup>25</sup> "We do not know if the State can stop the present construction contracts. The State's Legal Department feels it cannot be done," Memo summarizing BART, State meeting, from Malcolm Wallace to J.P. Sinclair, December 4, 1962.

<sup>&</sup>lt;sup>26</sup>Of all the BART lawyers' correspondence on the agreements searched, only one letter extensively challenges State. According to BART Staff Counsel at the time, Warren Marsden, in a letter to Alan S. Hart, District Engineer, September 19, 1966, State's contention was incorrect, namely the position, "in order for the Department to convey any right-of-way, the Director must allege in such conveyance the property is not necessary for State Highway purposes." Referring to Section 118 of the Streets and Highways Code, Marsden claimed this clause, "referred only to the disposition of surplus property acquired by State for highway purposes."

 $<sup>^{27}{\</sup>rm The}$  agreement terms with formulas are specified in a memo from L.M. Peterson to J.P. Sinclair, District IV Engineer, dated July 2, 1963, and summarizing a meeting of June 11, 1963.

slope. Right-of-way costs would be apportioned in a similar fashion, BART paying for occupied area between barriers, area under one side slope and area from the bottom of the slope to the right-of-way fence (nonusable area). Construction costs in the nonusable area (e.g., drainage, retaining walls, clearing, concrete removal) were also apportioned in the same ratio as right-of-way ratios, which was about 27% for BART. Construction costs benefitting only one facility were charged 100% to that facility. Finally, construction costs for frontage roads, fences, barriers and landscaping were divided equally.

BART preferred not to maintain a deposit in the State Treasury consisting of bills, notes and bonds up to \$8,500,000 as guarantee and safeguard against later default. <sup>28</sup> The State argued this was necessary and not unusual, remained adamant and obtained the clause in the final agreement.

These negotiation outcomes clearly favor the State's interests rather than BART's and follow from characteristics of key actors and the negotiation environment as previously discussed.

- . BART's chief negotiator felt a need to hurry the negotiation process, as reflected, for example, in the scarce use of legal resources to challenge the State.
- The State, with authority to proceed with highway development without BART, initially resisted any agreement; and, later resisted most BART preferences on agreement terms, and instead desired highway development to proceed.

<sup>&</sup>lt;sup>28</sup>BART's Controller-Treasurer, John M. Peirce, expressed his concern for this State position in a memo to the General Manager, October 23, 1963. He noted, "The policy of the State Department of Finance, which has jurisdiction over all non-highway contracts, is not to require a guaranty deposit of local government backed by taxing power ..."

While the perception of rush was not so dominant in later agreements, there is much evidence that many of the same perceptions and circumstances shaping the Grove Shafter agreement carried through to other, later agreements.

### For Example:

- . The same negotiators came together for all agreements.
- . Community desire, particularly in Oakland, to minimize land taken by BART, continued to oblige BART to negotiate with the State without much attention to alternative routes.
- Finally, many of the terms agreed to, explicitly or implicitly, in the Grove Shafter agreement, served as given or fixed points in future negotiations.

# (3) The Process Used And Positions Taken In Initial BART-State Negotiations Set A Precedent For Later Agreement Terms

BART's chief negotiator indicates that a number of the early agreement provisions "haunt BART" even today. Examples are:

- In agreement negotiations on Contra Costa County Highway 24, BART preferred a median location, rather than a location on the northern side of the then existing freeway where slide potential could threaten BART. The State agreed to the median location, but required BART to pay 100% of the costs of slide repair for five years, then 50% thereafter. This position by the State prevailed in all other agreements and, as with landscaping, is a responsibility from which BART has sought relief since the agreement.
  - On the Grove Shafter agreement, BART was saddled with perpetual maintenance of land-scaping, 29 with a buy-out provision at the end of five years. In subsequent agreements, land-scaping costs assumed by BART were clearly

<sup>&</sup>lt;sup>29</sup>Memo from Harry Moses to W.A.Bugge, Project Director, Parsons-Brinkerhoff-Tudor-Bechtel, April 4, 1967.

not desirable to BART, but were conceded by BART. BART has attempted and still is attempting, to obtain relief from this responsibility. One major attempt to gain this relief was made in negotiations for an agreement on Highway 238. Under verbal agreement with the Chief District Engineer Hart, BART agreed to relocate, at its expense, certain Western Pacific Railroad facilities in anticipation of an an agreement with the State for joint use right-of-way. 30 In return, BART proposed relief of landscaping and slope maintenance on several freeways. Subsequently, development of 238 was halted through court action brought by the Mexican-American organization, La Raza. The State has considered unadopting the route and discussions with the State continue to this day about appropriate credits to BART for relocations associated with 238.

Repayment of funds advanced by BART to the State for development of Contra Costa Highway 24 and the issue of rents from excess properties are two other issues of concern to BART in its dealings with the State. Against its own preferences, but again apparently in the interest of expediting the agreement, BART agreed to allow repayment to be contingent on the the discretion of the California Highway Commission. For several reasons, tied to negotiations on another agreement, complete repayment has not been forthcoming, 31

The amount was claimed by BART to be \$3.4 million in a letter to Alan Hart,
District Engineer, District IV, from D.G. Hammond, BART Assistant General
Manager, March 19, 1970.

<sup>31</sup>The complexities are too extensive to discuss here. A summary of some of the issues appears in a memorandum to members of the Highway Commission from James A. Moe, Director of Public Works, suggesting resolution M-63, March 4, 1970.

On the issue of excess lands, the agreements are clear as to BART obtaining sale proceeds, <sup>32</sup> but differences exist between BART and the State on whether or not rents from excess lands should include rents from lands acquired prior to the date of the agreement.

The issues of landscaping and slope maintenance, claims on Highway 238, rents from excess lands, and others continue to be discussed by BART and CALTRANS in hopes of devising a "washout" agreement to satisfy both parties without cash exchanging hands.

<sup>32</sup> Interestingly, Melvin Dykman argued, after the Grove Shafter Freeway Agreement was signed, that Harry Moses had not intended the sale of excess property to be so generous to BART. He suggested the intent agreed to by himself and Moses was, "Transit was to receive a percentage of the sales price in the same propportion as Transit contributed to the purchase price of the excess property." Memo to Harry Moses from Malcolm Barrett, January 14, 1967. Subsequently, Moses agreed to Dykman's contention, but no agreement changes were made.

### IV. CONCLUSIONS AND IMPLICATIONS

This chapter summarizes the main findings of the analysis, draws several conclusions about BART impacts on State highway facilities development and policy-making and suggests implications for the Bay Area and other communities considering rapid rail transit investments.

# 1. SUMMARY OF STUDY FINDINGS

The main findings about highway facilities, planning and policies can be summarized as follows:

- . Main State highway unadoption decisions in the Bay Area appeared to have no relationship to BART.
- The anticipation of BART was probably a cause, though not the only one, for changes in at least two proposed State highway facilities, the proposed Southern Crossing Bridge and I-580.
- . The accommodation of BART development significantly altered the location, timing and width of certain State highways, but not the number of lanes, interchanges or ramps. The highways include Route 24, I-280 and I-80.
- BART-related traffic and congestion have resulted in only minor changes in State highway plans and facilities.
- BART interaction with the State has created one general and one specific State policy guideline for highway planning and development in conjunction with transit. The general guideline is much too vague to guide highway administrators. The specific guideline does provide guidance and serves to protect highway interests. Neither were adopted by the Highway Commission and District IV Directors were not familiar with them until brought to their attention.
- . Major agreements between BART and the State on specific joint projects represent the most significant impact of BART on State highway policy.
- The agreement negotiation process represented compromise between the State and BART, with State preferences dominating.

The outcome of BART-State agreement negotiations indicates BART's preferences were more often compromised than the State's.

# 2. CONCLUSIONS AND IMPLICATIONS

- (1) No Dramatic Changes In State Highway Facilities, Plans
  And Policies Occurred As A Result Of BART, Except
  Policy Changes Generally Protecting State Plans And
  Programs.
  - BART did affect certain highways but not by reducing facilities as many rapid transit advocates had hoped. Rather, the main effect was to speed up, slow down or widen highway plans which otherwise came into fruition largely unaltered. In the one case where BART may have substantially reduced highway plans, the proposed Southern Crossing Bridge, it was the public perception of a BART trans-Bay segment which was instrumental in halting the development, not State planning or policies nor any regional policies.
  - In contrast to the broad State policy guidelines, the main agreement policies between BART and State, as a response to perceived impositions of BART, are very specific. State planners and administrators perceived BART's proposals to share State right-of-way as an issue or problem, not an opportunity. In some cases, State highway areas suggested for joint use were already developed and planned and there were legal questions about use of gas tax monies which had to be answered. It is no wonder, then, that in response to obstacles and complications in specific route planning and development, State response was to negotiate very specific policies on cost sharing, property rights, maintenance and other matters.
  - The agreement policies were developed largely to protect State interests. This result could be expected in light of the perceptions of the negotiators, their use of resources, the role of outside publics and interests and the autonomy of the State. The State could proceed with its plans without BART. The BART negotiator perceived he had only very costly and/or disruptive options to joining the State

in certain right-of-way and BART had to be built quickly. The fact that local interests and the attendant public were neutral to BART preferences on agreements, but pressed for agreements to proceed, did not help BART's negotiating position. One could, perhaps, argue that the BART negotiator might have used his legal resources more to BARTD's advantage, but it is hard to imagine this making a decisive difference on agreement conditions.

- (2) Neither BART Nor The State Acted Irregularly In

  Devising Policies That Were More Favorable To One
  Party Than Another And More Sequential Than Holistic
  - Planners and transit advocates may argue BART could and should have had more impact on highway plans and policies than is reflected in the findings. A more reasonable conclusion based on this study is that one cannot expect an established bureaucracy, such as CALTRANS or DPW, to abruptly alter its mission, plans and resource allocations by way of interacting with a new transit agency, unless other interests (cities, legislatures, etc.) intervene on the side of transit. Where there are divergent views and preferences among interacting agencies, it is bargaining and compromise which must take place to resolve the differences. In such bargaining, actor resources, allies and skills will determine the outcome, not concepts of planned coordination held by planning interests viewing the interaction from the outside.
    - We should not be concerned that it was the perceived problems of BART, rather than the "opportunity" to serve transit, which spurred State policy development. Again it is unreasonable to expect agencies vested with authority and resources serving the motoring public to voluntarily consider the interest of the transit public.33

<sup>33</sup>In an analysis of the politics of Federal budgeting, Aaron Wildavsky has observed, "It is difficult enough for a participant (in the process of devising and defending his or her own agency's budget) to calculate how all the interests he is protecting might best be served without requiring that he perform the same calculation for many others who might be affected." See <u>The Politics of the Budgetary Process</u>, op. cit., p. 166.

On the contrary one would expect any State administrator worth his keep to ward off threats to programs and plans made by transit, all the while seeking to make the most of any obligatory marriage with transit.

Neither the State nor BART has acted irregularly by not devising a master policy to guide BART-State interactions. The fact that most policy-making centered around specific agreements on certain joint efforts only reflects the general phenomena inside and outside of bureaucracies of dealing in most detail with what is most pressing and issue laden. Faced with the prospect of BART visiting its right-of-way, State, naturally, sought means for specifying how this could be done to protect State interests. Once one agreement was made, the next shared several principles of the first (e.g., "sharing the benefits") but was altered to accommodate different circumstances. Such an incremental procedure, as much literature suggests, is common to the policy-making process in many arenas.

(3) Two Policy Implications Relate To The Functions Of
The Federal Government And Regional Planning Agencies
In Joint Highway-Transit Use And The Purpose Of Rapid
Rail Projects

If rapid rail or other transit systems are to be planned for urban areas, the joining of such systems with existing highway right-of-way may be a cost effective alternative to development of of a new right-of-way. The perfectly appropriate tendency of highway and transit agencies is to negotiate joint use based on perspectives of their own constituencies. Therefore, the interaction of these agencies could likely develop an amount or character of joint use that is not optimal from a broad cost-benefit standpoint. Thus, the Federal Government, probably through regional planning agencies, should not only require attention be given to joint use in places planning for rapid rail, but should also require cost-benefit analysis of alternative joint use schemes. Based on analytical results, the Federal role in joint use evaluations should be tied to the Federal capital grant allocations in rapid rail developments.

In this way, there will be incentives for Federal and/or regional planning agency actors to become participants in negotiation between State highway and transit on joint use. Federal and regional planning negotiators should pay particular attention to proposed agreements between State highways and transit on:

- Compensation to State highways for delayed plans.
- Modification and accelerations of plans for highway development in the near or long term.
- Protection for motorists and the State from accidents or right-ofway abandonments.
- Plans for landscape and slope maintenance.
- Arrangements to purchase right-ofway for transit and/or highways joint use at later dates.

These are a few areas where interactions between transit and State alone may not produce the most efficient results.

This analysis suggests it is unlikely the main plans of State highways will be significantly altered by rapid rail planning, at least in the case of a relatively new transit agency interacting with an established State highway department. Another report in the BART Impact Program suggests it is unlikely BART-like systems will reduce congestion in the long term. Although BART has been responsible for removing some automobiles from congested corridors, the extra capacity provided by BART was filled in within one to two years by new automobile trips. Both findings suggest decision-makers and planners contemplating the development of rapid rail systems should not expect that demands for additional road capacity are likely to diminish as a result of rapid rail developments. Hence, there should be other compelling rationales for considering rapid rail systems aside from their impact on the perceived need for road development.

# APPENDIX A PUBLIC POLICY PROJECT STATE HIGHWAY PLANS AND POLICIES LIST OF INTERVIEWEES

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ment, CALTRANS, District IV,

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Sacramento

Burt Crowell BART Impact Program Director, 1

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Melvin Dykman Legal Counsel, CALTRANS, Head-

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<sup>&</sup>lt;sup>1</sup>Titles and affiliations as of June 1, 1977.





